

**A Project Report**

on

**“Indian Mathematicians and Inventions”**

Submitted by

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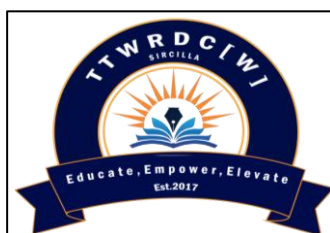
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Under the guidance

Of

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**Department of Mathematics**

**Telangana Tribal Welfare Residential Degree College(W), Rajanna Sircilla.**

**(Affiliated to Satavahana University)**

**Academic year (2022-23)**

## **DECLARATION**

I hereby declare that the project report titled “ **Indian Mathematicians and Inventions**” have completed successfully towards the partial fulfilment for the award of the degree “BACHELOR OF SCIENCE from “TELANGANA TRIBAL WELFARE RESIDENTIAL DEGREE COLLEGE FORWOMEN, RAJANNA SIRICILLA .This is the bonafide work undertaken by me which is not submitted to any other university or institution for the award of any degree / diploma.

Date: 16-3-2023

Place: Thangallapally

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Sircilla  
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**CERTIFICATE**

This is to certify that the project report title " **Indian Mathematicians and Inventions**" submitted in partial fulfillment for the award of degree of B.SC programme of Department of Mathematics was carried out by G.Avinasha(220771044681015),N.Anjumalika(220771044681025),B.Saswika(220771044681006) . This has not been submitted to any other institute or university for the award of any degree.



Signature of the guide  
(N.Shailaja)



Principal  
TTWRDC(W)SIRCILLA  
Dist: Rajanna Sircilla

**Project Report on Indian Mathematicians and Inventions**

**Aim:**

To know the contributions of Indian Mathematicians

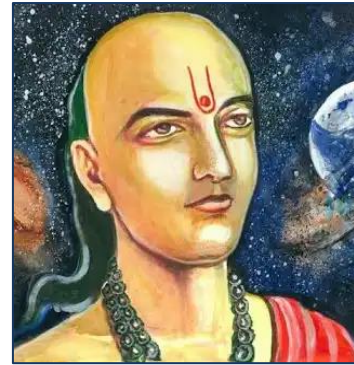
**Objective of the project:**

The objective of the project on Indian mathematicians and their inventions is to explore,document,and highlight the significant contributions of Indian mathematicians throughout history and their impact on the development of mathematical thought.

## Project Overview:

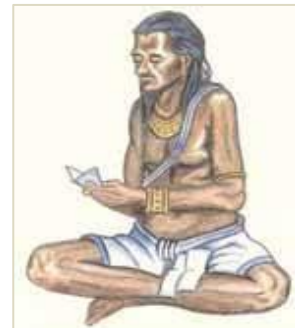
### ARYABHATA(476–550 CE)

- solar system rotation
- approximation of pi
- Trigonometry
- place value system
- zero
- $\text{Pi} = \frac{62832}{2000}$
- Indian astronomer and mathematician
- Aryabhata is the father of Indian Mathematician



### BRAHMAGUTHA(c.598–c.668 CE)

- Toggle Proof subsection
- Trigonometric proof
- Non-trigonometric proof
- Extension to non-cyclic quadrilaterals
- Related theorems
- He was the first to use zero as a number. He gave rules to compute with zero.



### BHASKARA II(1114-1185)

- Bhaskara II was an Indian mathematician and astronomer.
- He discovered some of the basic concepts of calculus, more than 500 years before Leibnitz and Newton.



- Bhaskara also established that division by zero yields infinity, and solved various quadratic, cubic, quartic and Diophantine equations.

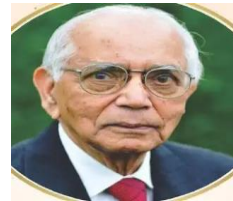
### SRINIVASA RAMANUJAN (1887-1920)

- Mathematical analysis
- Infinite series,
- Continued fractions,
- Number theory, and
- Game theory is recognized as one of history's greatest mathematicians.



### NARENDRA KARMARKAR (BORN 1956)

- He invented one of the first provably polynomial time algorithms for linear programming,
- Karmarkar developed Karmarkar's algorithm. He is listed as an ISI



### Conclusion:

The conclusion of Mathematicians of India or from outside is that the mathematicians had given a way to all of us to solve the mathematics by using their formulas, theorems, postulates and many more tricks. They had done many things for us to create our future with maths because it is a straight way, if you go long you will reach early and safely.

